

## ABSTRACT

### Double Double Balanced Mixer

A double balanced mixer for mixing an RF input signal with a local oscillator signal to provide at an output an intermediate frequency signal with high isolation over a wide frequency range. The mixer includes a local oscillator balun that is operable to receive a local oscillator signal. A RF balun that is operable to receive a RF signal. A first mixer has a first input port that is coupled to the local oscillator balun and a second input port that is coupled to the RF balun. The first mixer has an output port to provide an intermediate frequency signal. A second mixer is coupled in parallel with the first mixer. The second mixer has a first input port that is coupled to the local oscillator balun and a second input port that is coupled to the RF balun. The second mixer has an output port that provides an intermediate frequency signal. An intermediate frequency balun is coupled to the output ports of the first and second mixers.